

puberulous on both surfaces. Tendrils trifid, divided about the middle.

Male flowers: In racemes, minutely bracteate, peduncles 18 to 20 cm long, slender, puberulous, 6-10 flowered; lower flowers arranged distantly, upper condensed. Pedicel 2.0-2.5 cm long, slender, calyx-tube 2.0-2.5 cm long, corolla fimbriate, without projections 1.0 x 0.3 cm. Stamens 3, inserted in the calyx tube, adnate, synandrous; anther lobes 0.3 cm x 0.1 cm; filaments free, 0.1 cm in length. Pollen grains 3-zonicolpate (pollen grains with compound aperture, 3 porate colpi), sub-prolate (58.6 x 68.0 μ); exine 3.5 μ thick, reticulate.

Female flowers: Solitary, axillary, minutely bracteate; pedicel 1 cm in length; flower length 4.0-4.5 cm; calyx-tube 3.0-3.5 cm, corolla tube 1.4 cm; ovary 1.5-1.8 cm in length, covered with minute hairs; style long 1.5 cm; stigma trifid, 0.3 cm long. Fruits 18-22 x 12.0-14.5 cm; pedicel 1 cm; fruit surface glabrous; linear-oblong, streaked with white-green colours; green streaks 1.5 cm broad, white streaks 0.5 cm at

base towards stalk. Seeds packed in bright red orange pulp, ellipsoid, 12-15 x 6-8 mm and 2.0-2.5 mm thick, flat, surface rugulose, margin denticulate, tubercled, truncate at the apex, much compressed at base.

Flowering and Fruiting: July-September.

Ecology: Occasional, along the wet edges of sloppy fields. Frequently associated with *Trichosanthes cucumerina*, *Coccinia grandis*, *Ampelocissus latifolia*, *Cassia tora*, *Murrya koenigii*, *Zizyphus mauritiana*, *Lantana camara*, *Euphorbia hirta* and *Physalis divaricata*.

Specimen Examined: Srinagar, GUH 2910

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18. REDISCOVERY OF *HUGONIA MYSTAX* LINN. (LINACEAE) FROM MAHARASHTRA, INDIA

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Hugonia myst Linn. Sp. Pl. 675 1753; Dalz. & Gibs. *Bombay Fl.* 17, 1861; Masters in Hook.f. *Fl. Brit. Ind.* 1:413, 1875; Cook, *Fl. Pres. Born.* 1:156, 1901; Talbot, *Trees Bombay* 28, 1902; Wight., I11. 02, 1840.

“Modira-Canni” Rheede, *Hort. Mal.* 2: 29-30, t. 19, 1679.

A rambling scandent shrub; branches yellow-tomentose, with short horizontal branchlets, leafless below and provided near the ends with a pair of circinate hooks. Leaves 4-6 by 2.5-4 cm, elliptic-obovate, obtuse or subacute, entire, reticulately veined, the veins conspicuous on both the

surfaces, glabrous, base tapering; petioles 2 mm long, hairy; stipules lanceolate-subulate. Flowers at the extremities of the short branchlets 2.5-3 cm across, terminal and in the upper axile; pedicels short 1-flowered, clothed with soft yellow hairs. Sepals 7 mm long, ovate-lanceolate, acute, fulvous-pubescent. Petals many times longer than the sepals, thin, ovate-oblong, acute or truncate. Styles longer than the stamens; stigmas capitate. Drupes about 9 mm in diameter, globose, surrounded by the persistent sepals; bright red after maturity; pulp scanty; stone bony, grooved, 10-celled, with usually 2 or 3 seeds.

A rare plant found near the junction of river goes to sea on sandy areas among the other bushes. Few plants were seen at single spot.

Fl. & Fr.: August (Seen the plant in flowering and fruiting in December)

Distribution: Mochemad-Vengurla.

Specimen Examined: BGG - 2974 (BLAT)

This is the first report of this species after a gap of 145 years. It was reported by Dalzell & Gibson in Bombay Flora in 1861 based on collection of the species between Vengurla and Malvan. However, no specific locality has been given by Dalzell. Dalzell reported the flowering period of the plant as August, in rainy season, but I have seen the plant flowering and fruiting during December, in winter season. I have collected the specimens and taken the photographs of the same (Eds: photographic evidence provided).

In the FLORA OF SINDHUDURG DISTRICT (55,1988), Mr. B.G. Kulkarni reported this species, on authority of Dalzell. In FLORA OF MAHARASHTRA Vol. I: 175, 1996), M.R. Almeida has reported this plant on the authority of Dalzell, as well as in the FLORA OF MAHARASHTRA (Vol.1: 411, 2000) published by BSI. No other collector has been able to locate this species in Konkan. I have located this species while doing the plant survey of Vengurla taluka for my Ph.D. Degree.

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I sincerely thank my guide Dr. S.M. Almeida for help in determination of the species, Dr. M.R. Almeida for the assistance provided in the confirmation of the species and Dr. U.C. Bapat, the Director, Blatter Herbarium, St. Xavier's College, Mumbai for facilities rendered during my work.

19. A NEW RECORD OF *MONOTROPA HYPOPITYS* L., A MYCO-HETEROTROPHIC PLANT FROM INDIA

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A myco-heterotrophic plant *Monotropa hypopitys* L. is reported for the first time from India. The illustration, phenology, range of occurrence and conservation threat of the species have been presented in this paper.

About 400 species of vascular plants under 87 genera are achlorophyllous and heterotrophic, but not directly parasitic. These plants are unable to assimilate carbon by themselves and are mostly dependent on fungal association for nourishment. Hence, these saprophytic plants are called as myco-heterotrophic plants. Most myco-heterotrophic plants are restricted to the tropics and the diversity in terms of number of species and families is maximum in the Palaeotropical region (Leake 1994). The members belonging to the genus *Monotropa* are achlorophyllous, myco-heterotrophic plants. The subfamily Monotropoideae of Ericaceae consists of 10 genera and 12 species (Wallace 1975). *Monotropa* has a wide distribution throughout Europe, North America and Asia, with a circumboreal distribution extending northward almost up to the Arctic Circle (Wallace 1975). It is also found in far south, such as Mexico, Panama and Colombia (Maas 1986). However, in India, *Monotropa* is

restricted to temperate Himalayas in Garhwal and Kumaon (Strachey 1974) and Khasi Hills (Hooker 1882; Haridasan and Rao 1985). Of the two species of *Monotropa*, namely *M. hypopitys* and *M. uniflora*, only *M. uniflora* has so far been recorded from these areas. While reporting *M. hypopitys* from China, Wallace (1975) included India as one of the countries where the species can be found. However, there was no mention of specific locality. Other than this, there is no published report on occurrence of *M. hypopitys* in India till date.

While establishing the identity of the species, the authors came across two specimens of the same species, one from Naga hills with collection No. 17636 (ASSAM) deposited by N.L. Bor in September, 1936, and another from Salari forest in East Kameng district of Arunachal Pradesh with collection No. 39961 (ASSAM) deposited by J. Joseph in September, 1964. However, the species was never collected from Meghalaya and was never published describing its occurrence in India.

Monotropa hypopitys was discovered during the floristic exploration in two sacred forests of Meghalaya.